



DEPARTMENT OF THE NAVY
COMMANDER NAVY REGION SOUTHWEST
677 M. HARRIS RD.
SAN DIEGO, CA 92132-0058

IN REPLY REFER TO

COMNAVREGSWINST 11320.1C

N23

27 MAY 2003

COMNAVREGSW INSTRUCTION 11320.1C

Subj: REGIONAL FIRE PREVENTION REGULATION

Ref: (a) OPNAVINST 11320.23F Shore Activities Fire Protection Program
(b) MIL-HDBK-1008C Fire Protection for Facilities Engineering, Design and Construction
(c) National Fire Protection Association Manuals and Publications
(d) Unified Facility UFC 3-600-02 Operational and Maintenance Inspection Testing of Fire Protection Systems
(e) NAVSEA OP 5 Volume 1 Ammunition and Explosives Ashore Safety Regulations for Handling, Storing Production, Renovation and Shipping
(f) DOD 4145.19-R-1 Storage & Materials Handling
(g) NAVAIR 06-5-502 Aircraft Refueling for Shore Activities
(h) NAVAIR 01-1A-35 Maintenance Instruction Organizational Intermediate and Depot Aircraft Fuel Cells and Tanks
(i) OPNAVINST 1700.9D Child Development Programs
(j) MIL-HDBK-P11101.43E Residents of Military Family Housing

Encl: (1) Regional Fire Prevention Regulation

1. Purpose. To publish policies, procedures and responsibilities for Fire Prevention and Protection for Navy Region Southwest (NRSW).
2. Cancellation. COMNAVBASESANDIEGOINST 11320.1B, WPNSTASBINST 11320.1E, NBVCINST 11320.1, NASLEMINST 11320.1H, NASFINST 11320.1B, NAFECINST 11320.2C, WPNSTACONCORDINST 11320.1B
3. Scope. Applicable to all Navy and Marine Corps activities receiving fire prevention services from the Federal Fire Department within NRSW.
4. Discussion. Reference (a) provides broad program policy and

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guidelines for implementing and executing an effective fire prevention/protection program.

A handwritten signature in black ink, appearing to read 'A. D. Brunhart', with a stylized flourish at the end.

A. D. BRUNHART
Deputy and
Chief of Staff

Distribution:
www.cnrsw.navy.mil/admin/menu.htm

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FIRE PREVENTION REGULATION

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CHAPTER 1

FIRE PREVENTION REGULATION

0101. **INTRODUCTION.** Department heads and all military and civilian supervisors shall be familiar with the Fire Prevention Regulation to ensure compliance and dissemination within their organization. The Fire Prevention Regulation is not intended for general posting; however, brief excerpts may be conspicuously posted in locations where they apply.

0102. **PORTABLE FIRE EXTINGUISHERS.** The installation, maintenance and use of portable fire extinguishers shall be per reference (c).

a. All discharged fire extinguishers shall be reported to the Fire Prevention office and shall be taken to the fire station for replacement or repair.

b. Fire extinguishers shall not be used or moved from its assigned location for any reason, except for firefighting purposes or required maintenance.

c. Fire extinguishers are provided for existing buildings, however, activities are responsible for the purchase of fire extinguishers for vehicles and new facilities or changing from one occupancy classification to another, which may require additional extinguishers. Prior to purchase of extinguishers, contact the Fire Prevention Office for guidance on type, size and placement.

0103. **FIRE PROTECTION SYSTEMS**

a. The testing and maintenance of fire protection systems shall be per references (c) and (d). All impaired water distribution systems and fire alarm systems shall be promptly reported to the Federal Fire Department, Public Works Center/Department and/or Facility Maintenance Department.

(1) When fire protection systems are secured or placed back in service, the Fire Prevention Office shall be notified.

(2) Fire hydrants, Siamese connections, Post Indicator Valves (PIVs) and other control valves shall be clearly visible and clear of obstructions.

(3) Smoke detectors in residential quarters, lodges, BEQ's and BOQ's shall be inspected and tested annually by qualified and trained personnel.

b. **Sprinkler Systems**

(1) The Federal Fire Department and Public Works Center/Department and/or Facilities Maintenance Officer, or their

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representative shall be notified when sprinkler protection is impaired and secured overnight or for a longer period of time.

(2) No material of any kind shall be hung from sprinkler deflectors or piping. Sprinkler heads shall not be covered or coated with white wash, paints or other materials. Sprinkler control valves shall be maintained and sealed in the Open position.

(3) A minimum of 18" clearance shall be maintained between ceiling sprinkler deflectors and the top of stored materials piled less than 15 feet high.

(4) A clearance of 36" shall also be maintained between sprinkler deflectors and stored non-hazardous materials with pile heights in excess of 15 feet, and a clearance of 36" of stored hazardous material regardless of the height of piles. (Hazardous material is defined as materials that, either by themselves or in combination with their packaging, are highly susceptible to ignition and will contribute to the rapid spread of fire).

c. Fire Detection Systems

(1) Personnel specifically qualified and trained shall perform testing, maintenance and repair of fire detection equipment.

(2) In the event of an alarm system failure or malfunction, a patrolling fire watch shall be established in all buildings to ensure the maximum possible degree of fire safety is afforded during the entire period of impairment.

(3) No person shall tamper with fire detection equipment or create conditions that would adversely affect its operation.

0104. FIRE PREVENTION BUILDING INSPECTIONS

a. Inspection frequency shall be based on fire and life hazards, occupancy classification, fire loading and the importance of normal activity. All facilities shall be inspected at least semi-annually with more frequent inspections authorized for higher hazard facilities. Additional inspections are authorized to ensure prompt correction of life hazards and facilities deficiencies. The inspections include examination of fire protection and detection systems, and fixed and portable fire extinguishing systems. The frequency of Fire Protection inspections consist of:

(1) Monthly Inspections. All buildings having high monetary value, severe fire potential, mission essential or high life safety risk such as: aircraft hangers, aircraft refueling pits, ship repair facilities, industrial, data processing and communication facilities, hospitals and childcare centers.

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(2) Semi-Annual Inspections. All other buildings having a lesser fire threat to life and property. Inspected semi-annually such as: maintenance and storage facilities, lodges, dormitories, business offices, public assembly buildings, commissaries and retail stores.

b. Fire Hazard Abatement Procedures. Upon completion of the building inspection, the inspector shall provide the cognizant department head or their representative, a copy of fire discrepancies discovered. The department head or their representative shall ensure that the discrepancies annotated on the fire inspection report are corrected as funding permits. The original fire inspection report must be returned with corrective actions within the specified abatement time to the Inspector.

0105. FIRE SAFETY EDUCATION. This training shall include fire prevention instructions on proper club closing procedures, for places of assembly, Fire Warden Training, Fire Extinguisher Training, Work Place Fire Safety, Home Fire Safety and Fire Safety Orientation Training for new civilian and military personnel. Training shall be provided annually and upon request. The Fire Prevention Office will provide the training.

0106. FIRE EVACUATION DRILLS

a. Fire Evacuation Drills are scheduled and conducted by the Code Enforcement Officer - Fire Protection Inspector. Fire Evacuation Drills shall be conducted in all occupied buildings with ten or more personnel. Fire evacuation drills may also be scheduled by calling the Fire Prevention Office. The hours that fire evacuation drills are conducted should vary. The Code Enforcement Officer - Fire Protection Inspector shall schedule the fire evacuation drills with the command, department head or activity Fire Warden, having responsibility for the building. Activity Fire Wardens sharing buildings with other commands or groups, are responsible for assuring that all other commands or groups, in the building are notified of a scheduled fire evacuation drill. The Code Enforcement Officer - Fire Protection Inspector shall be present and conduct the Fire Evacuation Drill. Upon completion of the Code Enforcement Officer - Fire Protection Inspector's fire evacuation drill, the Fire Evacuation Drill Report shall be provided to the cognizant department head or activity Fire Warden.

b. Frequency of Fire Evacuation Drills

(1) Monthly fire evacuation drills shall be conducted in all Child Development Centers and Correctional Facilities. A designated fire department representative shall be present to observe the immediate and orderly evacuation of the building and proper activation of the fire alarm system.

(2) Quarterly fire evacuation drills shall be conducted in health care facilities. Health care facilities are required to have a quarterly fire drill each shift. A designated fire

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department representative shall be present to observe the immediate and orderly evacuation of the building and proper activation of the fire alarm system.

(3) Annual fire evacuation drills shall be conducted for aircraft maintenance hangers each shift, industrial and storage occupancies, places of public assembly, business occupancies, commissaries, retail stores, BOQ's, BEQ's, lodges, and any other occupancies not classified above. Fire evacuation drills are not required in private residences; however, families are encouraged to practice evacuation drills in their homes.

0107. EXTERIOR FIRE SAFETY PRECAUTIONS

a. Clearance around Structures. All grass weeds and brush within 25 feet of all structures shall be kept trimmed. For open storage and fuel handling areas, the trim line shall be a minimum of 50 feet. Trash and leaves shall not accumulate under or against structures. Activities that own, lease, control, operate, or maintain any building or structure in, upon or adjoining any land which is covered with brush or flammable material shall comply with the following:

(1) Maintain a firebreak made by removing and clearing away all brush, flammable vegetation, or combustible growth, for a distance of not less than 30 feet from the property line or perimeter fencing. Weapons facilities shall be per reference (e).

(2) Maintain additional fire protection around buildings or structures by removing all brush, flammable vegetation or combustible growth, for a distance of 30 to 100 feet.

(3) Remove leaves, needles or other dead vegetative growth from the roof of all structures.

(4) Burning trash, weeds or brush is prohibited.

b. Outdoor storage of combustibles

(1) Dumpsters and other central trash disposal units shall be placed a minimum of 15 feet from buildings, fire hydrants, fire protection control valves, and flammable or combustible material storage.

(2) Boxes and similar bulky material shall be broken up or crushed before being placed in dumpsters. Waste should not protrude beyond the exterior of the dumpster.

(3) Industrial waste barrels shall be made of metal or other non-combustible material and equipped with fitted covers per reference (d).

(4) Flammable or combustible liquids shall be turned in to hazardous waste management personnel for disposal.

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c. Obstruction of fire protection equipment. The placement of equipment, shrubbery, or any items that restrict or interfere with the use of fire hydrants, sprinkler connections, post-indicator valves, hoses, alarm boxes, and hose connections is prohibited.

d. Vehicular Traffic

(1) Yield to all emergency vehicles with flashing and audible emergency warning devices by stopping your vehicle (on the far right hand side of roadway, if possible) to ensure unrestricted travel for the emergency apparatus.

(2) Upon request, move automotive vehicles or other equipment as necessary to provide free access for responding fire apparatus.

(3) Vehicle parking within 20 feet of fire hydrants or sprinkler standpipe connections is prohibited. Activities shall provide appropriate markings of fire hydrants and other fire protection equipment.

(4) Vehicles are prohibited from driving over a fire hose unless specifically directed to do so by Fire Department personnel.

e. Obstruction of Passage

(1) Material or equipment left on ramps or loading platforms overnight shall not block access to any door or window.

(2) The Federal Fire Department shall be notified prior to the closure or blockage of streets, roads and access lanes.

f. Access Aisles and Fire Lanes

(1) Access aisles to standpipe hoses, fire extinguishers, fire escapes, sprinkler system components, electric, gas, water, and steam control valves shall be a minimum of 36 inches wide and properly posted.

(2) Fire lanes shall be required for all buildings which are set back more than 150 feet from public roadways or exceed 30 feet in height and are set back over 50 feet from a public road.

(3) When fire lanes are provided, fire lanes shall not be less than 20 feet of unobstructed width, able to withstand live loads of fire apparatus and have a minimum of 13 feet 6 inch vertical clearance. Fire lanes shall be identified by signs and marked curbs. Any dead-end road more than 300 feet long shall be provided with a turnaround at the closed end, at least 90 feet in diameter.

g. Excavations. Engineering plans shall be reviewed before excavating areas adjacent to gas mains, oil tanks, gasoline or

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other pipelines, fire alarm cables, etc. Smoking or open flames of any kind is prohibited in areas where flammable gases or vapors may exist. Excavation areas where the potentials for flammable gases or vapors exist shall be tested and if gas is present, appropriate ventilation shall be provided.

0108. INTERIOR FIRE SAFETY PRECAUTIONS

a. Storage of Combustibles

(1) Combustible trash, rubbish, and scrap material shall be disposed of in metal cans, receptacles, bins or dumpsters. All trash and rubbish shall be cleared from buildings at the end of each workday, including emptying of waste receptacles. Trash and rubbish containers shall not be permitted in public corridors or stairways of buildings, or placed in locations where ignition of the contents could prevent safe evacuation of a building.

(2) Approved metal or metal-lined containers with automatic or self-closing lids shall be provided and used for storing clean and dirty rags, waste packing materials such as excelsior, shredded paper or other combustible material. The metal covers shall be kept closed and never wedged or blocked open. Containers shall be removed from buildings and emptied as required during working hours and before securing buildings at the end of the workday.

(3) Cleaning gear and other material subject to spontaneous ignition shall be kept in approved metal containers and stored outside of buildings.

(4) Storage of combustibles is prohibited in all equipment rooms, air conditioning rooms, boiler or heater rooms, exit corridors, transformer rooms, attic spaces, and on or under stairways. Combustible material shall not be placed on or stored near radiators, heaters, or steam pipes.

(5) The amount of duplicating fluid within buildings shall be limited to not more than a one-day supply stored in metal lockers.

(6) Clothing lockers, adequately ventilated, shall be made of metal and maintained in a clean and orderly condition. Combustible material shall not be stored on top of or underneath lockers. Work clothes kept in lockers shall be aired and cleaned regularly. Flammable liquid chemicals, paints, grease-soaked rags and similar materials shall not be kept in clothes lockers.

b. Attics and Concealed Spaces

(1) Unsprinklered Attics and concealed spaces shall not be used for the storage of combustible material. A minimum of 18" clearance shall be maintained between ceiling sprinkler deflectors and the top of stored materials piled less than 15 feet high in sprinklered attics.

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(2) Scuttle holes and other openings connected to attics and concealed spaces shall be equipped with fire resistant equivalent doors.

(3) Latches, trap doors, and connecting openings to confined spaces shall not be used for ventilating purposes and shall be kept closed at all times when not in use.

c. Kitchen Hood, Duct, and Exhaust Systems. Installation, renovation, and maintenance of the kitchen hood and duct system shall be per reference (d). Exhaust systems and ducts shall be kept free of grease, residue, dust, etc. Filters and duct systems shall be constructed of non-combustible materials and cleaned at least weekly. A maintenance log shall be kept and maintained by the building manager.

d. Decorations

(1) Only non-combustible or approved flame retardant materials shall be used for decorations on window coverings. Where flame retardant materials are used, periodic treatment shall be necessary per the manufacturers' guidelines.

(2) The location of temporary holiday decorations shall not be placed in areas where egress would be impeded or blocked.

(3) Natural cut Christmas trees shall be treated with a flame retardant and the butt ends shall be cut 1 to 2 inches and placed in a stand with water. Artificial Christmas trees shall be labeled or otherwise identified or certified by the manufacturer as "flame retardant." Decoration lights shall be low voltage, bear the label of Underwriters Laboratories (UL) and shall be in good condition. Only non-flammable ornaments and decorations are permitted. Christmas trees shall not obstruct exit ways or other means-of-egress. Live Christmas trees are prohibited in unsprinklered buildings and BEQ/BOQ sleeping quarters. Open flame candles shall not be used in decorations. The Fire Prevention Office at each installation should be consulted prior to the placement of temporary holiday decorations to ensure life and safety requirements are met.

0109. SECURING OCCUPIED AND VACANT BUILDINGS

a. Securing at End of Day

(1) The manager responsible for Public Assembly buildings shall conduct a closing inspection after all patrons have vacated the premises. Managers shall use the Federal Fire Department Form 11320.76 to inspect their facility. The Fire Department shall indoctrinate and train management personnel as required.

(2) All buildings shall have an identification number assigned. In case of after hour emergencies and to gain emergency

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access, Knox boxes may be installed and utilized to secure building keys for emergency access for fire responding units.

(3) All paint, brushes, drop cloths, rags, etc. shall be removed from buildings at the end of the workday and placed in metal containers at least 15 feet from the building and away from combustible materials.

(4) All heating devices and window air conditioning units not required to be in operation during the night shall be turned off at the close of working hours.

b. Vacant Buildings

(1) Vacant structures shall be locked or barricaded. All Windows, doors and other openings in buildings shall be secured to resist unauthorized entry. Unnecessary flammable and combustible waste and refuse are to be removed from the premises. Material stored shall be placed in an orderly fashion to provide access and minimize fire spread. Utility services are to be turned off to the maximum extent conditions permit.

(2) Before closing a structure, the Fire Prevention Office shall be notified so a closing inspection can be conducted.

c. Exit Requirements

(1) Exit requirements shall comply with references (d) and (h).

(2) All doors and windows shall be properly closed and locked at the close of the workday.

(3) Exit doors shall comply with applicable requirements of reference (d). No restrictive hardware, such as padlocks, hasps, throw bolts or crossbars, shall be installed on any exit door.

(4) Every required exit, exit access, and exit discharge shall be continuously maintained free of all obstructions or impediments to ensure their accessibility for use by building occupants in the case of a fire or emergency.

(5) Curtains, displays, or exhibits shall not conceal door exit signs or block or interfere with access to any exit.

(6) Exit accesses, corridors, and enclosed stairways shall not be used for storage.

d. Housekeeping. Good housekeeping or the maintenance of order and cleanliness is a basic factor towards maintaining an adequate fire prevention program. Disposal, limiting, or segregating combustibles to reduce the danger of fire accomplishes this action. Repair areas and storage spaces shall be maintained

in a neat and orderly manner and shall be policed regularly to reduce fire hazards.

e. Storage and Parking of Vehicles

(1) Government and privately owned vehicles shall not be stored in buildings, unless the facility was designed, constructed, and operated as a vehicle parking or maintenance facility.

(2) When it is considered to be in the best interest of the government to store vehicles inside buildings a request shall be submitted to the Fire Department to ensure fire protection safeguards are adhered to.

0110. SMOKING RESTRICTIONS

a. Smoking is prohibited in all Department of the Navy buildings, vehicles and aircraft.

b. Outdoor areas designed for smoking shall not be located in areas commonly used by non-smokers or in the immediate vicinity of building entryways or egresses. An adequate number and type of receptacles for discarded smoking materials will be provided and housekeeping maintained at the highest standards. Receptacles shall be non-combustible and have self-closing covers or extinguishing type covers.

0111. SENTRIES AND SECURITY PATROLS. All sentries, patrols and security guards shall be instructed on the proper fire reporting procedures and the Fire Department shall assist in providing training as requested.

a. Fire reporting instructions for all sentry posts, patrols, and security guards shall be available and posted. Instructions shall contain the location of fire reporting telephones in the vicinity of sentry posts and those located in or adjacent to any given patrol route.

b. The proper fire reporting telephone number is 9-911 or 911 depending on the installation. Call the Fire Prevention Office in your location for the correct emergency number for your area.

c. Provide locations of telephones which are available for use during non-working hours.

d. Maintain operating instructions of portable fire extinguishers.

0112. HEATING AND OIL BURNING EQUIPMENT

a. General

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(1) Only heating equipment labeled and/or listed by the American Gas Association (AGA), Underwriters Laboratories (UL), or Factory Mutual System (FMS), are permitted and shall be inspected and serviced per AGA, UL and FMS standards. Storage of fuel for oil burning heaters shall be per reference (d).

(2) The use of open flame type heating devices is prohibited in areas where flammable liquids are stored or where vapors can accumulate.

(3) Heaters shall be turned off or disconnected when not in use and at the close of business each workday.

(4) Fuel oil stationary and portable oil burning equipment shall be installed and maintained per the requirements of reference (d).

(5) Operating instructions, including fire prevention measures, shall be posted near the heating equipment.

(6) Safety devices, thermostats, and similar control equipment shall be frequently inspected and maintained to ensure proper operation.

0113. ELECTRICAL PRECAUTIONS

a. Electrical installations shall be per reference (d) and shall be installed by qualified personnel. Electrical devices shall be labeled or listed by a qualified electrical testing laboratory, e.g., UL. Unless specifically permitted by the National Electrical Code, installation of electrical wiring with flexible cords and cables shall not be used:

(1) As a substitute for the fixed wiring of the structure, and

(2) Pass through walls, ceilings, floors, or doorways and windows, or similar openings or;

(3) Attached to the building surface or;

(4) Concealed behind walls, ceilings, or floors.

(5) Looped or fastened by nails or hooks.

b. Electrical wiring or fixtures installed or used in places where dangerous concentration of explosive vapors, gases, or dusts may be present or generated shall be of an approved explosion-proof, vapor-proof, and dust-proof type, per reference (d).

(1) When any fault is detected in electrical wiring (e.g., short circuit, overheating, insulation failure, or exposed conductors), the current shall be turned off and tagged until authorized personnel have corrected the fault. All static and

portable equipment generating static electricity shall be grounded per reference (d).

(2) Automatic circuit breakers shall not be taped, fastened, or altered to prevent automatic/manual disconnect of electrical power. Circuit Breaker Panels shall be installed and maintained per reference (d).

(3) Extension cords may be used if the cord and its connectors are suitable for the purpose. Extension cords, portable lights, and portable electrically operated tools or devices, together with their connections and fittings, shall be grounded, inspected, and maintained in a safe condition. All extension cords shall be kept dry and free of oil and grease. If extension cords are left plugged in as the "normal" source of supply that should be sufficient evidence of the need for a permanently wired receptacle at that location. Cords shall be three-wire grounded type. Buildings, which are not wired as a three-wire, shall not utilize extension cords.

(4) Electronic computer/data processing equipment shall be installed and inspected per references (b) and (d). Power strip line surge/spike suppressors shall be used with personal computers and their associated peripheral equipment ONLY. Surge protectors shall incorporate over current protection (circuit breaker) and shall be listed/labeled by an approved testing laboratory, e.g., UL. At the close of business each day, the power strip shall be secured either by a single ON/OFF switch on the unit or by disconnecting the cord from the wall receptacle.

c. Heat Producing Appliances and Open Flame Devices

(1) Portable heat producing appliances labeled by UL or approved by FMS shall have a label or approval affixed. The use of open flame lighting devices such as oil lamps and candles is prohibited.

(2) Portable electric space heaters shall be UL approved and have built-in thermostats and tip-over devices. Before using a portable space heater, a permit must be obtained from the Federal Fire Department. Portable space heaters using gas or liquid fuel are prohibited.

(3) Coffee makers, hot plates, and similar devices shall be located with adequate clearances from combustibles and shall not be used in storage rooms, closets, or other out-of-sight places. Automatic built-in timers are not permitted on coffee makers, hot plates or similar devices. Before using coffee makers, a permit must be obtained from the Federal Fire Department.

(4) The use of charcoal and gas operated grills are prohibited under or within structures, under or on combustible balconies, decks, or porches. Charcoal briquette coals shall be soaked in water for 30 minutes before being disposed of in a non-

combustible trash receptacle. Open flame portable cooking and food-warming devices, such as gas-fired grills, require a Permit from the Fire Department.

0114. CONSTRUCTION AND RENOVATION REQUIREMENTS

a. The plans for all construction projects and facility modernization or rehabilitation programs (including self-help projects) shall be submitted to fire protection engineers and the Fire Prevention Office to ensure they meet fire protection requirements.

(1) Fixed fire protection systems installed or modified under such projects shall be submitted to fire protection engineers for review and approval and subject to an acceptance test.

(2) New construction or rehabilitation/renovation areas shall be policed regularly to reduce or eliminate the accumulation of combustible material and fire hazards. Fire Protection Inspectors shall conduct weekly on-site inspections.

b. Location of Structures

(1) Structures exceeding 1000 square feet gross floor area shall not be set back more than 50 feet from an approved fire lane or street.

(2) The required separation distances of planned buildings to existing structures shall be per reference (b).

(3) Contractors working on the activity shall conform to and be guided by current NFPA and OSHA regulations regarding fire safety. Before starting work, staff civil engineering, facilities engineering and ROICC shall contact the Fire Prevention Office, for a contractor's briefing of these regulations.

0115. PORTABLE MODULE FACILITIES

a. Portable Module Facilities are transportable trailers in one or more sections, which are 8 feet or more in width and length, built on a chassis, without a permanent foundation and without wheel attachments. Reference (d) establishes requirements for both new and existing module facilities.

b. Minimum Separation. A minimum separation of 50 feet shall be provided for extra hazardous groups and 15 feet separation for all other groups.

c. Occupant Load. For residential, business and industrial modules, the occupant load for determining required exits shall be per reference (d).

d. Number of Exits. No less than two exits shall be accessible from every part of any floor occupied for business and industrial modules.

e. Interior Finish. Interior finish for all occupancies shall be Class A or B. The use of Class C Interior finish is permitted in sprinklered buildings. The use of Class D, and E, or cellular plastic materials is not permitted.

f. Fire Protection. Portable fire extinguishers rated at 2A40BC shall be provided per reference (d).

g. Utilities. Electrical service installation shall be underground or overhead per reference (d). Electrical service from overhead lines shall be provided with electrical surge arresters.

0116. WAREHOUSE STORAGE

a. This section shall not be construed as requiring major re-warehousing programs. As storage is removed and replaced, action should be incorporated to eliminate unsatisfactory storage arrangements. References (d) and (f) establishes requirements for the arrangement for warehouse storage.

b. Blocks. Are self-supporting regular stacks of supplies, two or more units wide, two or more units deep, or two or more units high. Blocks may be rectangular or pyramidal.

c. Block Storage. Block Storage is storage of similar containers or material in a block.

d. Maximum Area of Storage Blocks

(1) Hazardous materials - 2000 square feet.

(2) Materials of moderate and low combustibility - 8000 square feet.

(3) Noncombustible - 20,000 square feet per block.

e. Storage Heights. Commodity storage heights shall not be limited except to maintain the following clearances:

(1) Below automatic sprinkler deflectors, where the height of storage does not exceed 15 feet, an 18-inch clearance shall be maintained; and where the height of blocks exceeds 15 feet, a 36-inch clearance shall be maintained.

(2) Below joists, rafters, beams and roof trusses where the height of storage does not exceed 15 feet, an 18-inch clearance shall be maintained; and where the height of blocks exceeds 15 feet, a 36-inch clearance shall be maintained.

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f. Clearance between Blocks. When clearances are needed to maintain storage block limitations, the following aisle widths shall be maintained:

(1) Hazardous materials (2000 SF blocks), aisles 4 feet wide shall be maintained.

(2) Materials with moderate or low combustibility (8000 SF blocks), aisles 6 feet wide shall be maintained.

g. Clearance between Blocks and Walls

(1) Exterior and standard (4-hour) firewalls do not require a clearance.

(2) Substandard firewalls- a 24-inch clearance shall be maintained.

(3) Hazardous materials stored in general purpose storage buildings - a 24-inch clearance shall be maintained.

(4) Clearance around fire doors - a 24-inch clearance shall be maintained around fire doors, where necessary, barriers shall be built to prevent the piling of material against sliding fire doors.

(5) Pallet storage shall be no higher than 8 feet and each pallet pile of no more than 4 stacks shall be separated from other pallet piles by at least 8 feet of clear space.

h. Other Clearances

(1) Access to equipment - a 36-inch aisle shall be maintained for access to electrical equipment or firefighting equipment.

(2) Lighting and heating fixtures - an 18-inch clearance shall be maintained around lighting and heating fixtures.

(3) Access aisles shall be a minimum of 48 inches wide along all interior walls and a minimum of 10 feet wide down the center of buildings. Each side of the access aisle shall be identified by a white 6-inch wide stripe and stenciled in red lettering, "FIRE LANE KEEP CLEAR". The stencil lettering shall be 4 inches high and 2 inches wide.

(4) Gasoline, compressed gas powered and electric powered vehicles or material handling equipment shall not be parked overnight or stored in warehouses.

0117. HAZARDOUS ACTIVITIES

a. All hazardous activities in the vicinity of an emergency shall be suspended until the senior fire officer secures the emergency.

b. Application of Tar, Asphalt and Similar Materials

(1) Tar kettles are not permitted in buildings or on the roof of any building.

(2) An operating tar kettle shall be continuously attended by a person knowledgeable of its operations and hazards. A minimum of two 20:BC dry chemical extinguishers shall be provided, one at the tar pot, the other at the area of tar application.

(3) Roofing kettle shall not block exits, means of egress, gates, roadways, or entrances. Tar kettles shall not be closer than 10 feet from exits or means of egress.

(4) Kettles for heating the hot tar shall meet requirements per reference (d).

(5) Hot tar substances shall not be heated above the temperature necessary to produce workable fluidity and in no case above its flash point.

(6) When the material is applied within a building or other enclosed area, the atmosphere shall be free of dust. Adequate ventilation shall be provided to completely remove smoke and fumes.

(7) All open flame devices, smoking, and/or other sources of ignition shall be prohibited in or near the area of application of the material.

c. Spray Painting

(1) Spray painting shall not be conducted within buildings unless standard spray booths and exhaust systems are provided. Spray booths shall be designed, installed, and maintained per reference (d). Interior spray painting of buildings may be permitted if all required safeguards are provided.

(2) Tarpaulins and drop cloths used in painting operations shall not be stored in buildings.

d. Battery Charging

(1) Battery charging shops shall comply with requirements of references (d) and (e).

(2) Forklift truck battery recharging located within buildings shall comply with reference (d). Firewalls, venting, rated electrical lights and switches, and automatic fire protection systems are required in buildings charging large numbers of lift truck batteries. Spark-producing devices not rated for hazardous locations are not permitted in the vicinity of charged batteries.

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e. Fireworks, Pyrotechnics and Explosives

(1) Command controlled displays are the only authorized activities where the ignition of fireworks is permitted. The possession, use and/or ignition of fireworks by all other personnel are prohibited. This does not include toy pistols or similar devices that use a paper cap, saluting cannons or blank cartridges used by the military, or highway warning devices.

(2) Black powder is prohibited in family housing and other occupancies not approved for storing Class B explosives.

f. Cleaning and Refinishing Floors

(1) Flammable liquids with a flash point below 100 degrees Fahrenheit shall not be used to clean and/or refinish floors or furniture. Petroleum base or other volatile flammable liquid base materials, produced for cleaning purposes, shall have a flash point of 140 degrees Fahrenheit or higher.

(2) Where practicable, work shall be performed using natural and/or mechanical ventilation to dissipate combustible vapors. When removal of electrical fuses is not practicable, all electrical appliances in the vicinity (including water coolers, soft drink dispensers, and other automatic stopping and starting appliances) shall be disconnected before finishing material is applied and shall not be reconnected until drying is complete. The use of open flames and spark producing devices is prohibited during cleaning operations. Residue from sanding machines shall be placed in metal containers, wet down, and removed from the building promptly.

0118. WELDING AND CUTTING REQUIREMENTS AND OPERATIONS

a. When possible, welding and cutting operations shall be conducted in locations that have been specifically designated for that purpose, e.g., welding shops. In the event welding, cutting, burning, and open flame operations are performed in any location other than specifically designated for such purpose, a fire watch is required, and a written permit shall be obtained from the Federal Fire Department.

b. When welding or cutting is performed in the weapons area the weapons or explosives safety officer shall ensure weapons are removed from the area, be present during the fire department welding and cutting inspection, validate the work and sign the permit.

c. When welding or cutting is being performed in a confined space, a gas free certificate is required before the fire department will issue a written permit. Contractors must provide a gas free certificate signed by a qualified person for confined space operations.

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d. Where practical, gas cylinders shall be left outside of structures, 15 feet from the building and the bottles positioned in the up-right position. Acetylene and oxygen valves on the cylinder shall be closed when the equipment is left unattended or when work is completed.

e. Qualified welders shall only conduct welding and cutting with equipment in good operating condition. Where combustible or flammable material are exposed to welding or cutting operations, a fire watch with fully charged and operable fire extinguishers, appropriate for the type of possible fire, shall be posted at the work site. Hot work is not permitted on or adjacent to wooden wharves or piers.

f. Where practical, all combustibles shall be relocated at least 35 feet from the hot-work site. Where relocation is impractical, combustibles shall be shielded with metal or fire resistant guards. Welding or cutting performed adjacent to fire detection/suppression equipment shall require special safeguards to prevent accidental activation.

g. Openings or cracks in walls, floors, or ducts within 35 feet of the welding site shall be provided with adequate safeguards to prevent the passage of sparks to exposed openings.

h. The welder at the job site shall provide portable fire extinguishers. Fire extinguishers shall not be taken from their assigned locations in the buildings and utilized by the welder for performing the hot work.

0119. HAZARDOUS MATERIAL STORAGE AND SEGREGATION

a. The use of hazardous material or flammable liquids shall be stored in approved labeled flammable containers. All material shall be returned to the storage area prior to the close of the workday. Storage areas used for hazardous material and flammable liquids shall be well ventilated and plainly marked to indicate such storage. Flammable liquids having flash points below 80 degrees Fahrenheit or flammable gases shall not be stored inside buildings. Hazardous material and flammable liquid storage shall comply with reference (d).

b. Chemicals that react violently with water shall be stored in fire resistive structures that are not protected with automatic sprinkler protection.

c. Explosives (e.g., dynamite or blasting caps) shall be stored in magazines or in other approved structures. Materials susceptible to spontaneous heat when exposed to combustible fiber shall be stored in separate fire resistive buildings having automatic sprinkler protection.

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0120. SHIPPING AND TRANSFERRING HAZARDOUS MATERIAL

a. The Fire Department shall be notified of proposed transfers of bulk gasoline, oil, explosives, or other hazardous materials. The activity Ordnance Officer or their designee shall be present when ammunition is transferred, and shall ensure that all appropriate regulations are complied with.

b. Gasoline containers shall not be carried within any government or privately owned vehicle while on the activity. This does not apply to approved 5-gallon safety container used to transport gasoline from service stations to private residences for use in powered lawn and garden equipment.

c. The department controlling the transportation, handling, or use of any radioactive material shall notify the senior fire officer on duty of the general type, specific location where the radioactive material will be used or stored. In the event of fire, they shall also notify the senior fire officer on duty of possible emission hazards if any, physical properties and characteristics and specific information of the radioactive material which could be of aid to firefighting personnel.

0121. VEHICLES CARRYING ORDNANCE

a. The danger of fire is inherent in every motor vehicle loaded with hazardous materials. All personnel who operate vehicles carrying ordnance shall comply with the requirements of reference (e).

b. Each vehicle loaded with Class A, B, or C explosives shall be equipped with two fire extinguishers, each with a rating of 2A10BC or greater capacity, located on either side of the vehicle for immediate use by driver and/or passenger. Fire extinguishers shall be inspected daily by the driver to ensure they have not been lost, damaged, or tampered with.

c. To reduce the risk of an accident or fire, drivers shall know the contents of the load and be aware of its hazards and have in possession written firefighting instructions appropriate to the specific load being transported. Drivers shall move the truck off the road to a location that will provide the maximum shielding in the event the cargo explodes, remove the manifest from the vehicle and if trained, attempt to extinguish the fire. Vehicles carrying ordnance shall not be parked within 300 feet of an open fire.

0122. COMPRESSED GAS CYLINDERS

a. Storage of compressed gas cylinders shall comply with reference (d). Compressed gas cylinders shall be hydro tested every five years before recharging. Defective gas cylinders showing evidence of excessive rust, corrosion, dents, or obscures markings or labels are considered hazardous and shall be purged to atmospheric pressure.

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b. Noncombustible or reactive gases stored within buildings shall be separated away from other material.

c. Gas cylinders in open storage shall be protected from the elements using noncombustible roofing. Gas cylinders shall be separated at least 20 feet from other material, provided with natural cross ventilation and be secured to prevent movement or falling. Acetylene cylinders shall be stored in the upright position.

0123. FUELING OPERATIONS

a. Personnel

(1) Only authorized and qualified personnel shall be permitted to operate fueling equipment. They shall have a thorough knowledge of the hazards involved, locate and operate the nearest fire alarm, know the emergency reporting telephone number of fire, Medical, Police (9-911) and locate and operate fire extinguishers provided.

(2) Operators of fueling equipment shall turn off engine vehicle lights and short-wave radio transmitter before taking on fuel. Smoking or open flame devices are prohibited within 50 feet of fueling operations.

b. Bonding and Grounding connections

(1) The vehicles' ground wire shall be connected to a ground post prior to any fueling operation.

(2) The hose nozzle must be brought in contact with some metal part of the vehicle remote from the fuel tanks to eliminate static electricity. All tanks, hoses, and containers shall be kept in constant electrical bond while flammable liquids are being transferred to prevent static discharge.

(3) The dispensing nozzle must be in contact with the fill pipe during fueling operations. Bonding connections shall be made to tank trucks before dome covers are removed and shall not be disconnected until such covers have been replaced. Internal vapor pressure shall be relieved before the dome covers are opened. Bonding and grounding shall conform to reference (d).

c. Fire Safety Precautions for fueling operations

(1) Wedges, locking devices, etc., which restrict instant shutoff in gas lines during fueling operations shall be prohibited. Fuel transfer hoses shall have positive shut off valves between the hose and the bottom of load connections.

(2) The servicing of any vehicle leaking fuel shall be prohibited until necessary repairs are effected.

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(3) Automotive vehicles and other spark-producing equipment shall not be operated within 50 feet of a gasoline spill until the exposed area is free of flammable vapors. Vehicles carrying explosives shall not be fueled except in an emergency, and then only after the engine of the vehicle is stopped, all lights turned off, and static grounding devices properly connected.

(4) Fueling operations or the transfer of flammable liquid having a flash point below 100 degrees Fahrenheit shall be prohibited near the operating high intensity radar equipment, high frequency radio antenna, or antenna down-leads.

(5) Open flames, smoking, welding, burning, or internal combustion engines (gasoline) without flame arresters are not permitted within 100 feet of flammable liquid handling operations.

(6) Simultaneous ammunition and fuel handling operations are not permitted on the same pier. Ships planning transfer of flammable liquids between shore and ship to ship shall ensure fire mains have been inspected prior to fuel handling operations.

(7) Fuel handling shall be discontinued when indications of an electrical storm condition exist.

0124. FLAMMABLE LIQUID DISPENSING

a. Containers

(1) Containers used for dispensing flammable liquids shall be a type approved for such use by UL or FMS, glass containers are not authorized. Containers for flammable liquids shall be maintained in good condition. All portable containers used for handling, storage or dispensing flammable liquids shall be clearly marked to indicate contents. Contents of leaking containers shall be transferred to serviceable containers.

(2) Dispensing equipment shall be checked at regular intervals for leaks at pipe connections, stuffing boxes, and meters. When leaks are found, authorized repairman shall repair them, and the pumps shall remain out of service until repairs have been made.

(3) All dispensing of flammable liquids from tank trucks or underground tanks shall be performed by an approved pumping or water displacement system. Gasoline drums, when used as dispensers, shall be equipped with drum barrel pumps.

(4) Bungs, caps, or stoppers shall not be left out of drums, barrels, tanks, or other flammable liquid containers, including empty containers.

(5) Empty flammable liquid containers, to include fuel tanks, shall not be stored or repaired until thoroughly cleansed of

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hazardous vapors. All containers that held flammable liquids shall be cleaned thoroughly before being used for less hazardous material.

(6) Flammable liquids having flash points below 100 degrees Fahrenheit shall not be transferred into containers unless the dispensing nozzle and container are grounded.

b. Fuel Tank Trucks

(1) Fuel trucks having leaky or otherwise defective pumping equipment shall not be used and shall be placarded to identify the hazard.

(2) Gasoline tank trucks are not permitted in buildings not designated for that purpose unless approved by the Federal Fire Department. Tank trucks shall be parked in open areas at least 100 feet away from buildings and flammable storage areas. Gasoline tank truck storage shall not exceed 25,000-gallon capacity storage in a single group. Groups shall be separated at least 50 feet away from other storage groups.

(3) Discharge valves for dispensing flammable liquids with flash points over 100 degrees Fahrenheit shall be spring loaded and manually operated. Metal drip pans shall be placed under faucets and cleaned regularly.

(4) Drum pumps shall be used for dispensing flammable liquids with flash points below 100 degrees Fahrenheit. Drums shall be positioned upright and equipped with flame arrester bung vents.

(5) Hold Open Latches are required on gasoline and diesel dispensing nozzles including nozzles not incorporating a No-Seal-No-Flow Mechanism, except where specified. A "Hold Open Latch" is an integral part of the nozzle and is manufactured specifically for the purpose of dispensing fuel without requiring the consumer's physical contact with the nozzle. This requirement does not apply to nozzles that are primarily in operation to refuel marine vessels or aircraft.

0125. NAVY SHIP REPAIR AND OVERHAUL IN DRY DOCK

a. General Requirements

(1) This section shall not be construed as prohibiting the immediate dry-docking of a vessel whose safety is imperiled as by being in a sinking condition or by having been seriously damaged. In such cases all precautionary measures shall be taken as soon as possible. Requirements for ship repair shall comply with reference (d).

(2) Prior to ship repair and overhaul responsible personnel shall conduct an inspection of dry docked vessels to ensure all

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fire hazards are eliminated. The inspection shall include the amount of cargo, fuel, ammunition and condition and type of fire protection equipment. Temporary canvas tarpaulins used on board ships shall be noncombustible or flameproof certified.

(3) Work areas shall be maintained and free of all combustible trash and rubbish. Machinery and equipment shall not block pier fire lanes.

b. Ammunition and Hazardous Material storage. Vessels carrying explosives, flammable gases, hazardous chemicals, and flammable liquids, except ships fuel shall be off-loaded before entering ship overhaul and repair facilities. An exception can be requested by submitting an event waiver when the hazardous storage does not significantly impact on the work being performed. The event waiver shall be submitted and approved by the vessel's commanding officer and sent to Ship Repair Safety Office, for approval. The handling of Ammunition and Hazardous Material for ships in overhaul is prohibited.

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CHAPTER 2

FIRE ALARMS AND SIGNALS

0201. DISCOVERY OF FIRE. Report all fires including extinguished fires to the Fire Department. Any person, who discovers a fire, smells or sees smoke shall take the following actions as described in Section 0102.

0202. NOTIFY THE FIRE DEPARTMENT

a. Exterior Fire Alarm Box

(1) Read the instructions on the front of the alarm box. Reach in and pull handle or lever down to full length of travel and release.

(2) If safety permits remain at the fire alarm box to direct Fire Department units to the fire.

b. Interior Fire Alarm Box

(1) Actuate same as above.

(2) Proceed to exterior of building and direct Fire Department units to the fire.

c. Telephone

(1) Dial fire emergency number, 9-911 on phones or 911, depending on the installation. Call the Fire Prevention Office in your location for the correct emergency number for your area.

(2) State exact location of fire and what is burning, if known.

(3) Give your name, location, and telephone number from which you are calling.

(4) Stay on the phone until the alarm dispatcher acknowledges all pertinent information.

(5) If safety permits direct arriving Fire Department units to the fire.

0203. FALSE REPORT OF EMERGENCIES. Any individual who reports, or causes any report to be made, that an "emergency" exists, or willfully and maliciously sends, gives, transmits, or sounds any false alarm of fire by means of any fire alarm system, signal, or any other means or methods is subject to disciplinary action.

0204. FIRE REPORTING INFORMATION. Cognizant supervisory personnel shall be responsible for the adequate and conspicuous posting of

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the Fire Reporting Information (Fire Bill) and for the indoctrination of all personnel under their supervision, including those assigned specific duties, as directed in this instruction. Supervisory personnel will obtain necessary Fire Reporting Information from the Federal Fire Department, Fire Prevention Office, and shall develop and post evacuation plans for all occupied buildings.

CHAPTER 3

FIRE WARDEN PROGRAM

0301. FIRE WARDEN PROGRAM

a. The program objective is to provide a trained observer within the command to identify hazards and report them to the fire prevention office for corrective action. Each Command/Tenant shall implement the Fire Warden Program ensuring all buildings within their area of responsibility have designated Fire Warden(s). The Fire Warden Program provides commands with an in-house representative capable of identifying fire/safety deficiencies. This provides the activity and the Federal Fire Department an expeditious way of reporting and identifying fire safety deficiencies. The ultimate goal of the Fire Warden Program is to provide a fire safe working and living environment. The Federal Fire Department shall provide the training to the designated personnel of each Command/Tenant.

b. Fire Warden Responsibilities. Fire Prevention inspections conducted by the Federal Fire Department do not alleviate the possibility that a circumstance or condition could develop that would create a fire safety hazard; therefore, Fire Wardens are tasked with the following responsibilities:

(1) Fire Bills. Ensure Fire Bills are posted on all Official Bulletin Boards and/or in conspicuous locations.

(2) Exits. Ensure all required exits are continuous and unobstructed from any point in a building or structure to a public way.

(3) Exit Lights and Emergency Lights. Ensure that exit lights and emergency lights are operable. Any inoperable exit light or emergency light shall be reported to the appropriate authorities having repair responsibilities.

(4) Fire Evacuation Floor Plans. Department heads or their representative shall develop and post building evacuation plans for all buildings occupied by personnel. The evacuation plan shall consist of a schematic diagram of the building clearly showing all exits, escape routes, and location of firefighting equipment and evacuation alarms. Plans shall be at least 8" x 10" in size and be prominently posted at eye level, on official bulletin boards and/or in conspicuous locations.

(5) Fire Evacuation Drills. Fire Wardens assigned to commands that occupy office space with other commands in a building are responsible for assuring that each command in that building is notified of a scheduled fire drill. The Fire Prevention Inspector shall schedule and conduct the Fire Evacuation Drill.

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(6) Fire Extinguishers. Monthly inspection of extinguishers shall be accomplished by Fire Wardens ensuring extinguishers are fully charged and operable. Fire extinguisher tags shall be dated and initialed after all inspections. Inspection of extinguishers shall consist of a visual check only of the following items:

- (a) Extinguisher located in designated place;
- (b) No obstruction to access or visibility;
- (c) Operating instructions on nameplate legible and facing outward;
- (d) Seals and tamper indicators not broken or missing;
- (e) Examine for obvious physical damage, corrosion, leakage, or clogged nozzles.
- (f) Pressure gauge reading or indicator is in the operable range or position.

c. In the event the designated Fire Warden duties are reassigned, the Fire Prevention Office shall be notified by memorandum, thus ensuring a new activity fire warden receives the necessary training. Contact the Fire Prevention Office for Fire Warden training.

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CHAPTER 4

FIRE SAFETY PRECAUTIONS FOR AIRCRAFT MAINTENANCE HANGARS

0401. INTRODUCTION. A maintenance hangar is a building which aircraft is stored, and may require service, repair, or alterations. Extreme care is required by personnel working in maintenance hangars to avoid the dangers of fire.

a. Maintenance of Aircraft Fuel Systems. When aircraft fuel system maintenance is required the following precautions shall be taken:

(1) All aircraft shall be connected to a low-resistance ground before any maintenance is performed.

(2) Drain defective tanks or lines before bringing the aircraft into the hangar. Drop tanks left in hangars shall be grounded, purged or inerted and gas free tested.

(3) Fueling and de-fueling aircraft in hangars is prohibited.

(4) Each squadron shall have a sufficient amount of absorbent to adequately clean up aircraft fuel spills or other combustible liquids.

(5) Ventilate all fuselages and hull spaces.

(6) Disconnect aircraft batteries.

(7) Never use electrical equipment near open tanks or fuel lines. An ignition source capable of igniting flammable vapors or gases is not permitted within the hazardous area.

(8) Fire access lanes and firefighting equipment shall be clearly marked and kept clear at all times.

(9) Fuel transfer personnel shall wear non-static clothing.

(10) All refueling and de-fueling, and fuel handling operations shall be terminated when electrical storms present a possible hazard.

(11) Smoking shall be prohibited where aircraft fuels or other combustible liquids are stored or handled.

(12) If underground leakage of combustible liquids is discovered, the area shall be secured from entry and the Fire Department shall be notified.

b. Cutting or Welding on Aircraft. Cutting or welding shall be per reference (d). Prior to cutting or welding on aircraft, the

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supervisor shall obtain a welding permit from the Fire prevention Office, and have approval from the Aircraft Maintenance Office and the Safety Office.

c. Electrical Devices and Power Equipment. Electrical maintenance equipment installed or used in aircraft hangars shall be per reference (d). Electrical equipment shall be explosion-proof, including motors, switches, fixtures, and extension lights. Power units used in servicing aircraft shall be positioned far away from the aircraft as possible to eliminate the dangers of fire and explosion. Open flame or element space heaters are prohibited. Qualified electrical maintenance personnel shall be permitted to maintain and inspect these units.

d. Solvents. Maintenance personnel shall not clean equipment, aircraft parts, or hangar floors, using gasoline or other flammable solvents. All cleaning shall be performed using non-flammable substances or liquids.

e. Containers. A sufficient supply of metal waste containers with self-closing lids shall be provided for maintenance shops for the safe disposal of flammable wastes and rags. Self-closing, metal containers and drums shall be marked with the name of the contents i.e., oil, paint-soaked rags, aircraft fuels and other flammable materials and disposed of on a daily basis. The same type of containers shall be used for storing clean rags for immediate use in industrial shops, hangars, and on the flight line.

f. Combustible Materials. Oil, paint, or varnish shall be kept in approved storage areas free of sparks, flame, or other sources of ignition. These storage areas shall be placarded with "No Smoking" signs posted.

g. Vehicles. Requirements for vehicles inside hangars shall comply with reference (d). Vehicles shall not enter hangar bays, except by permission of the Air Operations/Maintenance Officer. Ground support equipment and vehicles operating in hangars shall be equipped with flame and spark arresters and non-arcing mechanisms. Vehicles so equipped will be allowed to operate in hangars only long enough to move aircraft and will not be allowed to park unattended in front of or near hangar doors. Vehicles shall not be parked in the hangar bay areas for extended periods.

h. Passageways. Shall be clearly defined and kept free of hazardous obstructions. Material shall be stored and maintained at all times for firefighting and easy access to firefighting equipment, sprinkler control valves, fuse boxes, and switch panels.

0402. TOUCH UP AND SPRAY PAINTING. The following safety precautions are established to reduce fire hazards in aircraft hangars when spray painting aircraft. Touch up spray painting inside hangars shall be per reference (d). Spray painting on aircraft in hangars shall be limited and conducted as follows:

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- a. Batteries and other sources of electrical power shall be disconnected.
- b. Static grounding of the aircraft shall be accomplished before starting spray-painting operation.
- c. 3 The spray gun shall be limited to one-quart capacity, and loading of the spray gun and mixing of paint or one gallon by brush or rollers performed outside the hangar.
- d. Adequate fire extinguishers shall be available to the spray gun operator in the spray painting area.
- e. Lights may be used, but switches in the hangar shall not be used during or 30 minutes after spraying operations have ceased.
- f. Scraping residue shall be done with non-sparking scrapers, spuds, or similar instruments.
- g. Interior spray painting within a 100-foot radius of maintenance or any arc welding operation is prohibited. Areas adjacent to the repaired aircraft shall be free of all equipment for a distance of 10 feet.
- h. Spark producing vehicles and equipment shall not be operated or moved during spray painting operations.
- i. Sufficient intervals must exist between paintings period to permit thorough ventilation of the surrounding area.

0403. AIRCRAFT FUEL HANDLING OPERATIONS

a. Aircraft Fueling. Aircraft fueling operations shall be per reference (g), and be limited and conducted as follows:

- (1) Fuel shall be loaded into tank trucks, and equipped with spark arresters, flame arresters, and other safety equipment. Fuel trucks with leaky or defective pumping equipment shall not be used.
- (2) Fueling trucks shall be positioned on the windward (upwind) side of the aircraft, parallel from the wing, at a distance the length of the hose permits.
- (3) Prior to aircraft fueling, the Fuel Transfer Operator shall check with an aircraft representative, to ensure no electrical equipment in the aircraft is energized.
- (4) Smoking, "Strike anywhere" matchos, cigarette lighters, oil lanterns, or similar open flame devices within 100 feet of fuel handling operations are prohibited.

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(5) Aircraft fuel tanks shall be filled or purged before entering aircraft hangars.

(6) Electrical equipment including lights and portable equipment in the vicinity of aircraft fueling operations shall be maintained and regularly inspected.

(7) Internal combustion engines shall not operate within 100 feet of fuel handling operations.

b. Aircraft Defueling. Defueling operations shall be conducted outside aircraft hangars and under controlled conditions similar to those required for fueling. No work shall be performed within 100 feet of an aircraft while it is being defueled.

c. Hot Aircraft Refueling

(1) Hot refueling of aircraft presents fire safety hazards not normally encountered in other refueling operations; therefore, personnel involved in hot refueling operations shall be properly supervised and trained in the performance of their duties with particular attention given to strict adherence to safety and fire prevention measures.

(2) Maintenance, arming, de-arming, or servicing of aircraft is prohibited during hot refueling operations.

(3) Only nonferrous tools shall be used in the immediate vicinity of "hot refueling" operations.

(4) Ensure firefighting equipment and extinguishers are in operable condition.

(5) Shoes with exposed nails or metal plates shall not be worn.

(6) All fuel transfer, defueling and hot refueling operations shall be terminated when electrical storms that are less than three (3) miles away presents a possible hazard.

(7) In the event of a fuel spill, refueling operations shall be terminated. Each squadron shall have a sufficient amount of absorbent to adequately clean up aircraft fuel spills or other combustible liquids. Fuel shall not be washed into drain systems.

CHAPTER 5

NAVAL MEDICAL CENTER FIRE PREVENTION REQUIREMENTS

0501. FIRE EVACUATION DRILLS

a. Fire Evacuation Drills shall be conducted per the Joint Commission on Accreditation of Health Organization (JCAHO). All hospital staff are to be familiar with the location of electrical and gas/oxygen shutoffs, firefighting equipment, and responsibilities for removing and directing patients and guests to a safe refuge in the event of an actual fire or emergency.

b. Fire Evacuation Drills shall include the transmission of a fire alarm signal and simulation of emergency fire conditions. Simulated emergency scenarios will be coordinated with the medical staff to ensure minimal disruption to patients and staff. Fire Evacuation Drill requirements are as follows:

(1) Quarterly

(a) Fire Drill on Day Shift during 1st month of each quarter for Outpatient and In-Patient wards.

(b) Fire Drill on PM Shift during 2nd month of each quarter for In-Patient wards.

(c) Fire Drills on Night Shift during 3rd month of each quarter for In-Patient wards.

(2) Monthly - Childcare Centers.

0502. ELECTRICAL EQUIPMENT. Electrical equipment with respect to purchasing, testing, inspection and maintenance shall be per reference (d).

0503. GAS AND OXYGEN SYSTEMS. Air compressors and vacuum pumps shall be located separately from gas storage and gas cylinder systems. Supply systems of nitrous oxide or mixtures shall be isolated from anesthetizing storage locations. Cylinders containing flammable gases or liquids shall conform to requirements established in reference (d). Medical personnel working in areas where oxygen is piped shall be familiar with the location and operation of the nearest pipeline shutoff. Valves shall be closed in the event of actual fire within the immediate area.

CHAPTER 6

MILITARY FAMILY HOUSING FIRE PREVENTION REQUIREMENTS

0601. RESIDENTS

a. Shall comply with reference (j) fire prevention regulations by ensuring the following precautions are taken:

b. Develop a fire evacuation plan with a minimum of two escape routes from each room.

c. Educate family members in the prevention of fires, i.e., identifying and responding to smoke detector alarms, memorizing the emergency phone number 911.

d. Identify a safe location outside the home, and inform all family members.

e. Keep matches and cigarette lighters out of children's reach.

f. Do not smoke in bed.

g. Use only wide-lipped ashtrays

h. Do not place ashtrays near drapes, curtains or other combustibles.

0602. SMOKE DETECTORS

a. A single station hardwired smoke detector shall be installed in each residence.

b. A performance test should be conducted monthly to insure operation, if detectors fail to operate contact Housing Maintenance Services immediately.

c. Keep detectors clean, free from dust and cobwebs, and do not paint them.

d. Do not disconnect smoke detectors for any reason.

e. Do not touch or hang any items from sprinkler heads. Report damaged sprinkler heads to Housing Maintenance Services immediately.

0603. FLAMMABLE LIQUIDS STORAGE. No more than 5-gallons of gasoline shall be stored in approved safety containers. Gasoline shall be stored in well-ventilated areas. Do not store any flammable material within 15 feet of water heaters, furnaces, or other heat producing sources.

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0604. ELECTRICITY

a. Residents shall not overload electrical outlets by using adapters, multiple/gang plugs or extension cords. Separately fused surge protectors are encouraged.

b. Electrical cords pulled through window frames, open doors, between door joists, holes drilled in walls or under rugs/carpet are prohibited.

c. Disconnect small electrical appliances (i.e. toasters or toaster ovens, blenders, coffee makers, etc.) when not in use.

0605. PREVENTING GARAGE FIRES

a. Keep garage clean and free of clutter. Do not store old cloths, magazines/newspapers, rags, etc. Do not block garage door.

b. Keep stored articles on shelves 15 feet from the water heater and furnace. Ammunition storage is prohibited.

c. The use of grinders, cutting torches/spark producing equipment and major automotive work is prohibited.

0606. PREVENTING AND HANDLING STOVE FIRES

a. Do not leave cooking unattended.

b. A pan fire can be extinguished by covering the pan with a lid, using baking soda or a fire extinguisher. Do not use water or flour to extinguish a pan fire. Do not try to carry the pan to the sink or to the outside.

0607. OUTDOOR FIRE SAFETY

a. Remove all dried grass, leaves or vegetation from yard and fence area. Burning trash and/or vegetation is not permitted.

b. Portable barbecue grills are permitted outside buildings or on lawns. Portable barbecue grills are permitted on first floor patios but must be positioned 10 feet from any building or structure. Turn off propane tanks immediately after use.

c. Never discard hot or cold charcoal briquettes on the ground. Store charcoal briquettes in a dry area.